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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/577,870

04/28/2006

Tomokazu Obata

TAN119

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54630 7590 05/13/2008

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EXAMINER

FOGARTY, CAITLIN ANNE

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



<b>Office Action Summary</b>	<b>Application No.</b> 10/577,870	<b>Applicant(s)</b> OBATA ET AL.	
	<b>Examiner</b> CAITLIN FOGARTY	<b>Art Unit</b> 1793	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 April 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/28/2006, 7/24/2006</u> .                                    | 6) <input type="checkbox"/> Other: _____                          |



## **DETAILED ACTION**

### ***Election/Restriction Acknowledgement***

1. Applicant's election without traverse of Group I (Claims 1 – 11) in the reply filed on April 17, 2008 is acknowledged.

### ***Status of Claims***

2. Claims 1 – 20 are pending where claims 12 – 20 have been withdrawn from consideration.

### ***Priority***

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Information Disclosure Statement***

4. The information disclosure statements (IDS) were submitted on April 28, 2006 and July 24, 2006. These submissions are in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statements are being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.



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6. Claims 1 – 3, 6 – 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by the English machine translation of JP 2002-226927 from the IDS (JP '927).

With respect to instant claims 1 – 3, the abstract and [0007] – [0009] of JP '927 teach a silver alloy for use in a reflective film comprising silver as a main element and at least one rare-earth element as a first dopant element. The rare-earth elements may be chosen from Ce, Nd, Sm, Gd, Tb, and Dy ([0008]).

In regards to instant claims 6 – 8, the abstract and [0007] – [0009] of JP '927 disclose a silver alloy for use in a reflective film comprising as a second dopant element at least one element selected from Ti, V, Nb, Cr, Mo, and Mn.

Regarding instant claim 11, the abstract and [0022] of JP '927 teaches that a sputtering target comprising the silver alloy for use in a reflective film may be made.

7. Claims 1, 3 and 5 – 8, and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakai et al. from the IDS (US 2002/0150772).

With respect to instant claims 1 and 3, paragraphs [0020] and [0021] of Nakai et al. disclose a silver alloy for use in a reflective film comprising silver as a main element and Nd (a rare-earth element) as a first dopant element.

In regards to instant claims 5 – 8, paragraphs [0020], [0021], and [0024] of Nakai et al. teach a silver alloy for use in a reflective film comprising as a second dopant element at least one element selected from the group consisting of Au, Cu, Pd, Mg, Ti, and Ta.



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Regarding instant claim 11, paragraph [0020] of Nakai et al. discloses that a sputtering target comprising the silver alloy for use in a reflective film may be made.

8. Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Ohno et al. (US 2002/0114915).

With respect to instant claims 1 and 4, the abstract, [0132], and [0133] of Ohno et al. teach a silver alloy for use in a reflective film comprising silver as a main element and up to 10 atomic% of impurity elements where the impurity elements include rare earth elements (first dopant) and gallium (second dopant).

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.



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11. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the English machine translation of JP 2002-226927 from the IDS (JP '927).

With respect to instant claims 9 and 10, the abstract and [0007] – [0009] of JP '927 teach that the concentration of the first dopant element (one or more of Ce, Nd, Sm, Gd, Tb, and Dy) is 0.2 – 5 atomic% and the concentration of the second dopant element (one or more of Ti, V, Nb, Cr, Mo, and Mn) is 1 – 10 atomic%. Both of these compositional ranges either overlap or are within the concentration ranges recited in instant claims 9 and 10.

Since the claimed compositional ranges of claims 9 and 10 either overlap or are within the ranges disclosed by JP '927, a prima facie case of obviousness exists. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed silver alloy composition from the silver alloy composition disclosed by JP '927 because JP '927 teaches the same utility (i.e. use in a reflective film) in the whole disclosed range.

12. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakai et al. from the IDS (US 2002/0150772).

With respect to instant claims 9 and 10, paragraphs [0020], [0021], and [0024] of Nakai et al. teach that the concentration of the first dopant element (the rare earth element Nd) is 0.1 – 3.0 atomic% and the concentration of the second dopant element (one or more of Au, Cu, Pd, Mg, Ti, and Ta) is 0.2 – 5.0



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atomic%. Both of these compositional ranges either overlap or are within the concentration ranges recited in instant claims 9 and 10.

Since the claimed compositional ranges of claims 9 and 10 either overlap or are within the ranges disclosed by Nakai et al., a prima facie case of obviousness exists. See MPEP 2144.05. It would have been obvious to one of ordinary skill in the art at the time the invention was made to select the claimed silver alloy composition from the silver alloy composition disclosed by Nakai et al. because Nakai et al. teaches the same utility (i.e. use in a reflective film) in the whole disclosed range.

### ***Conclusion***

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CAITLIN FOGARTY whose telephone number is (571)270-3589. The examiner can normally be reached on Monday - Friday 8:00 AM - 5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on (571) 272-1244. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Roy King/  
Supervisory Patent Examiner, Art  
Unit 1793

CF